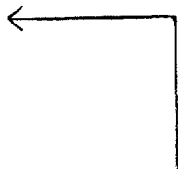


LEUKEMIA STUDY: ORIGINAL PROPOSED DESIGN

CHERNOBYL STATE REGISTRY:
~ 100,000 Liquidators selected
Resident in Kiev City or one of 5 oblasts
First employed between 1986 and 1990



Sub-cohort of 1,000 randomly selected:
Stratified by residence, year of birth?



Monitored for leukemia/lymphoma (1986-):
a) Ukrainian Cancer Registry using record linkage
b) Special oblast registries using record linkage



Leukemia and lymphoma cases identified

Pathological data obtained and stored



- a) Biological samples obtained (blood, tooth enamel)
- b) Dose assessment: official doses
analytic dose reconstruction
"soft" assessment
detailed assessment
FISH
EPR
- c) Epidemiologic data obtained



Cases and sub-cohort members compared
with respect to "dose"

8.6.1 Table

Power to Detect Statistically Significant* Linear Effect of
Dose on Leukemia Risk

| 1986 Dose Multiplication Factor | Years of Follow-Up** | | | |
|------------------------------------|-----------------------------|-------|-----------------------------|-------|
| | 1-25 | | 11-25 | |
| | Expected No. of Cases | Power | Expected No. of Cases | Power |
| 1.0 | 105 | 0.70 | 78 | 0.57 |
| 1.1 | 108 | 0.78 | 79 | 0.65 |
| 1.2 | 110 | 0.83 | 81 | 0.70 |
| 1.3 | 112 | 0.87 | 82 | 0.75 |

* Alpha = 0.05 (one-sided)

** years since 1986